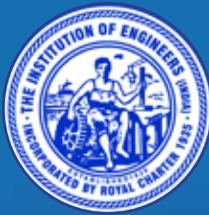


# 40<sup>TH</sup> INDIAN ENGINEERING CONGRESS



December 19-21, 2025

Durgapur

Theme:  
**Innovative  
Engineering  
Solutions  
for Viksit  
Bharat @ 2047**

Organised by

**The Institution of Engineers (India)**

Hosted by

**Durgapur Local Centre**

*Knowledge Partner*



**National Institute of Technology  
Durgapur**

*Industry Partner*



**SAIL Durgapur Steel Plant**

*Venue*

**National Institute of Technology Durgapur**

**Mahatma Gandhi Avenue, Durgapur Durgapur-713209, West Bengal**

[www.40iec.org](http://www.40iec.org)

# About Indian Engineering Congress

The Institution of Engineers (India) has a rich history of organizing Annual General Meetings, Annual Sessions, and Annual Conventions in various locations across the country. These gatherings provide a platform to assess our activities and objectives.

Over the years, the Annual Convention has transformed into the prestigious Indian Engineering Congress, aimed at promoting extensive interactions and knowledge exchange among engineers, both within India and globally. This annual event is designed to address the comprehensive needs of our engineering community.

The origins of the Indian Engineering Congress date back to 1987 when it was inaugurated by the esteemed Late Shri Rajiv Gandhi, the then Prime Minister of India, in Kolkata. Since then, it has been attended by notable dignitaries, including Shri N. Chandrababu Naidu, the Hon'ble Chief Minister of Andhra Pradesh, who inaugurated the 15<sup>th</sup> Indian Engineering Congress in Hyderabad in 2000. Additionally, Late Shri Pranab Mukherjee, the Hon'ble President of India, inaugurated the 27<sup>th</sup> Indian Engineering Congress in New Delhi in 2012 and the 28<sup>th</sup> Indian Engineering Congress in Chennai in 2013.

The esteemed list of inaugural guests also includes Shri E. S. L. Narasimhan, the Hon'ble Governor of Telangana and Andhra Pradesh, who inaugurated the 29<sup>th</sup> Indian Engineering Congress in Hyderabad in 2014. Shri Tathagata Roy, the Hon'ble Governor of Tripura, inaugurated the 30<sup>th</sup> Indian Engineering Congress in Guwahati in 2015, while Shri Keshari Nath Tripathi, the Hon'ble Governor of West Bengal, graced the 31<sup>st</sup> Indian Engineering Congress in Kolkata in 2016. Dr. Tamilisai Soundararajan, the Hon'ble Governor of Telangana, was the distinguished guest at the inauguration of the 34<sup>th</sup> Indian Engineering Congress in Hyderabad in 2019.

In 2020, due to the pandemic, the 35<sup>th</sup> Indian Engineering Congress was held online. Dr. Harsh Vardhan, the Hon'ble Minister of Health and Family Welfare, Science and Technology, and Earth Sciences, Government of India, attended the event as the Chief Guest, inaugurating the Congress session in a virtual format.

The Indian Engineering Congress has evolved into a respected annual tradition of the Institution, promoting knowledge dissemination and the exchange of ideas among professionals and enthusiasts in the engineering field. It stands as a testament to our commitment to engineering excellence and innovation.

# President's Message



I'm delighted to invite/extend a warm welcome to the 40th Indian Engineering Congress, being hosted by Durgapur Local Centre of The Institution of Engineers (India) scheduled to take place in Durgapur during December 19-21, 2025. This prestigious event has served long as a crucible for intellectual exchange, fostering innovation and collaboration across the engineering spectrum.

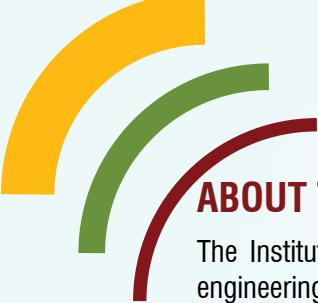
This year's theme—"Innovative Engineering Solutions for Viksit Bharat@2047"—is both timely and visionary. As India approaches 2047, engineers are poised to play a decisive role in shaping a self-reliant, sustainable, and technologically advanced nation. This Congress calls for actionable ideas rooted in foresight, integration, and cross-disciplinary convergence to address pressing national challenges—be it climate resilience, digital transformation, energy transition, or infrastructure development. The technical sessions will spotlight cutting-edge innovations across a broad spectrum of disciplines, including—but not limited to—Mechanical, Civil, Electrical, Aerospace, Chemical, and Materials Engineering.

Durgapur, with its industrial legacy and emerging research ecosystem, is an ideal host. Home to eminent institutions like NIT-Durgapur and CSIR-CMERI, the city offers the right blend of academic excellence and applied engineering innovation.

The Congress also features memorial lectures, visionary talks, and glimpses of engineering personalities that will be thought provoking and enrich perspectives. The International Meet, Women Engineers Meet, and Alumni Meet will further add depth, diversity, and global connectivity to the event.

I am confident that the outcomes of this Congress will contribute significantly to the national vision of Viksit Bharat@2047. I compliment and congratulate the organisers and wish all participants a stimulating and impactful experience.

**Er VB Singh**  
President



## ABOUT THE INSTITUTION OF ENGINEERS (INDIA)

The Institution of Engineers (India), or IEI, is the largest multidisciplinary professional body encompassing 15 engineering disciplines and providing engineers with a global platform to share professional interests. IEI has a membership strength of over 2.5 Lakhs. Established in 1920, with its headquarters at 8 Gokhale Road, Kolkata-700020, IEI has served the engineering fraternity for over nine decades. During this period, it has been inextricably linked with the history of modern engineering. In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India to receive this honor. Today, its quest for professional excellence has earned it a place of pride in almost every prestigious and relevant organization worldwide. IEI operates among professional engineers, academicians, and research workers. It provides a vast array of technical, professional, and supporting services to the government, industries, academia, and the engineering fraternity, operating from 124 centers located across the country. The Institution also grants aid to its members to conduct research and development on engineering subjects.

IEI has been recognized as a Scientific and Industrial Research Organization (SIRO) by the Ministry of Science and Technology, Government of India. It provides Grant-in-Aid to diploma, undergraduate, postgraduate, and PhD students of engineering institutes and universities.

IEI maintains the International Professional Engineers (IntPE) Register for India under the global International Professional Engineers Alliance (IntPEA). The Institution also grants the Professional Engineers (PE) Certification.

IEI, in collaboration with Springer, regularly publishes a peer-reviewed Scopus Indexed international journal in five series: Series A, Series B, Series C, Series D, and Series E, covering fifteen engineering disciplines. For further details, please visit: [www.ieindia.org](http://www.ieindia.org).

## ABOUT THE HOST CENTRE DURGAPUR LOCAL CENTRE

The Institution of Engineers (India), Durgapur Local Centre was established in 1961 in National Institute of Technology, (formerly known as R. E. College) Durgapur. In 1986 it was shifted from NIT Durgapur to Nehru Avenue, B-Zone, Durgapur-713205. Durgapur Local Centre received Best Local Centre Award for the sessions 2003-2004, 2015-16 and again in 2018-2019. Durgapur chapter was also adjudged the 2nd best Technicians' Chapter for the sessions 2015-2016, 2016-2017, 2017-2018, 2018-2019 consecutively.

Present Corporate Membership Strength is 2939, Non corporate (i.e. Technician and Sr Technician) Strength is 12063 and Institutional Membership 08 as on 31st December 2024. For further details, please visit: [www.ieidurgapurlc.org](http://www.ieidurgapurlc.org)

## KNOWLEDGE PARTNER NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

The National Institute of Technology Durgapur (NIT Durgapur) is situated on a verdant campus characterized by contemporary infrastructure. Established in 1960 as the Regional Engineering College Durgapur (RECD), it represents a collaborative initiative between the Government of India and the Government of West Bengal. In 2003, RECD transitioned to NIT Durgapur, obtaining full administrative and financial oversight from the Ministry of Human Resource Development of the Government of India and achieving Deemed University status. Furthermore, NIT Durgapur received university status under the UGC Act, and on August 15, 2007, it was designated as an Institute of National Importance by the Government of India. The institution commemorated its Diamond Jubilee in 2019.

NIT Durgapur is esteemed for its comprehensive academic offerings, which span undergraduate, postgraduate and doctoral programs across a wide array of disciplines, including engineering, technology, science, social science, and management studies. As an autonomous Institute of National Importance, NIT Durgapur has secured a prominent rank of 9th among all National Institutes of Technology (NITs) and 44th within the field of engineering according to the NIRF 2024 rankings.

## INDUSTRY PARTNER SAIL DURGAPUR STEEL PLANT

The Durgapur Steel Plant (DSP), a key unit of the Steel Authority of India Limited (SAIL), stands as a testament to India's industrial advancement. Located in Durgapur, West Bengal, DSP is renowned for its integrated steel production facilities, technological innovations, and significant contributions to the nation's infrastructure development.

Established in the late 1950s with assistance from the United Kingdom, DSP commenced operations in 1959. It was among the first integrated steel plants set up in India, marking a significant milestone in the country's journey towards industrial self-reliance. Over the decades, DSP has evolved into a leading producer of long steel products and holds the distinction of being the only producer of forged railway wheels and axles in the country.

DSP boasts a fully integrated steel production setup, encompassing:

Raw Material Handling: Efficient systems for the intake and processing of essential raw materials.

Iron making: Advanced blast furnaces converting raw materials into molten iron.

Steelmaking: State-of-the-art steel melting shops producing high-quality steel.

Rolling Mills: Including medium structural mills, wire rod mills, and merchant mills, shaping steel into various forms.

Wheel & Axle Plant: Specialized facility for manufacturing forged railway wheels and axles. Continuous modernization efforts ensure that DSP remains at the forefront of steel production technology. DSP is the sole producer of forged railway wheels and axles in India, catering to the requirements of Indian Railways and other global clients. The plant has adopted advanced technologies to manufacture high-quality wheels, including monobloc wheels of international standards.

The plant produces a variety of long steel products, including Medium.

Merchant Products: Used in construction and infrastructure projects.

Structural Steel: Essential components in building frameworks and industrial structures.

Wire Rods: Serving the construction and manufacturing industries. These products cater to sectors like construction, transportation, and heavy engineering. Technological Advancements DSP continually invests in technological upgrades to enhance efficiency and product quality. Notable advancements include-Modernization of Steelmaking Facilities: Installation of new 110-ton converters equipped with advanced features to improve productivity and environmental performance.

AIST

Environmental Stewardship:

In alignment with SAIL's commitment to sustainable development, DSP implements various environmental conservation measures, including-  
emission Control: Utilization of advanced technologies to minimize air and water pollution.

Waste Management: Efficient handling and recycling of industrial waste.

Green Initiatives: Development of green belts and afforestation programs within and around the plant premises. Notably, DSP has initiated trials to replace a portion of coke breeze with bamboo biochar in its sintering process, aiming to reduce CO<sub>2</sub> emissions by 15-20% per metric ton of crude steel produced. The plant also actively engages with the local community through Corporate Social Responsibility (CSR) initiatives focusing on education, healthcare, and infrastructure development.

## AIM OF THE CONGRESS

The aim of the Indian Engineering Congress (IEC), organized by the Institution of Engineers (India), is to bring together engineering professionals, academicians, industry leaders, policymakers, and researchers to discuss and deliberate on key issues, trends, and innovations that are shaping the engineering landscape in India and globally.

## THE OBJECTIVES OF THE INDIAN ENGINEERING CONGRESS

1. Promote Engineering Excellence: Encourage the advancement of engineering knowledge, skills, and practices to address current and future challenges.
2. Foster Innovation and Research: Provide a platform for presenting research papers, case studies, and innovative projects that contribute to technological progress.
3. Encourage Interdisciplinary Collaboration: Facilitate interactions among various engineering disciplines and stakeholders to foster integrated solutions to complex societal and industrial problems.
4. Support National Development Goals: Align engineering practices with national priorities such as sustainable development, digital transformation, infrastructure growth, and Atmanirbhar Bharat (self-reliant India).
5. Recognize Contributions: Acknowledge and honor outstanding contributions by engineers and institutions through awards and recognitions.
6. Professional Networking: Enable meaningful networking opportunities among professionals for knowledge exchange, mentorship, and collaboration.



# Innovative Engineering Solutions for Viksit Bharat @ 2047

Engineering has always been the driving force behind national progress. As India approaches 2047—the centennial year of its independence—the vision of Viksit Bharat@2047 calls for innovative, transformative, and future-ready solutions. The 40th Indian Engineering Congress (IEC), organized by The Institution of Engineers (India) (IEI), will convene industry leaders, academicians, and policymakers to explore groundbreaking advancements across disciplines. Embracing the theme “Innovative Engineering Solutions for Viksit Bharat@2047,” the Congress will spotlight disruptive technologies and sustainable engineering strategies that will define India’s self-reliant, technologically advanced, and resilient future.

From AI, IoT, and smart infrastructure to renewable energy, space technology, and next-gen mobility, engineering disciplines must continuously evolve to meet the aspirations of a technologically advanced and self-reliant India. The Congress will showcase cutting-edge innovations across diverse domains, including but not limited to mechanical, civil, electrical, aerospace, chemical, and materials engineering, with a strong emphasis on disruptive yet sustainable advancements that drive economic growth, infrastructure resilience, and national progress.

India’s commitment to Net Zero 2070 necessitates innovation in green hydrogen, smart grids, resilient infrastructure, and circular economy principles. At the same time, advancements in 5G, cybersecurity, blockchain governance, and AI-driven automation will be key to digital empowerment and national security.

To achieve Viksit Bharat@2047, India must foster a highly skilled, future-ready engineering workforce. The Congress will tackle education reforms, enhance research-industry synergies, and support startup incubation to create a dynamic, innovation-driven ecosystem that meets the demands of a technologically evolving world.

As Dr. A.P.J. Abdul Kalam envisioned, “The future belongs to those who can imagine, design, and execute.” The 40th IEC serves as a call to action—an opportunity to harness engineering ingenuity and technological excellence to shape a prosperous, globally competitive, and future-ready India.

## Sub themes

Civil Engineering	Mechanical Engineering
Smart Cities and Urban Mobility for a Modern India	Advanced Manufacturing for Make in India 2.0
Resilient Infrastructure Against Climate Change	Automation and Robotics in Core Sectors
Affordable Housing and Inclusive Urban Planning	Renewable Energy Systems Design and Optimization
High-Speed Rail and Next-Gen Transport Corridors	Energy-Efficient Thermal Systems for Clean Growth
Green Buildings and Sustainable Construction Practices	Smart Materials and 3D Printing in Engineering Design
Disaster-Resistant Structures for Safer Communities	Mechanical Systems for Rural and Agricultural Innovation
Water Resource Management through Civil Innovation	AI-Driven Predictive Maintenance and Reliability
Electrical Engineering	Electronics & Communication Engineering
Smart Grids and Future Energy Networks	5G and 6G for Digital Sovereignty
Electrification of Transportation for Clean Mobility	IoT and Embedded Systems for Smart India
Renewable Energy Integration and Storage Systems	Satellite Communication for Rural Connectivity
Power Electronics for Sustainable Industries	Electronic Warfare Systems for National Security
Electric Mobility Infrastructure and EV Innovation	Low-Power Electronics for Energy-Efficient Devices
Grid Resilience through Decentralized Power Systems	Innovations in VLSI and Semiconductor Self-Reliance
Automation in Power Systems for Efficient Distribution	AI-Enabled Wireless Systems for Smart Governance
Computer Science & Engineering / IT	Chemical Engineering
AI and Machine Learning for Public Service Delivery	Green Chemistry for Sustainable Manufacturing
Cybersecurity for Digital Bharat	Waste to Wealth Technologies
Blockchain for Transparent Governance	Innovations in Hydrogen and Biofuel Production

Digital Twin Technology for Infrastructure Management	Sustainable Petrochemical Alternatives
Quantum Computing for Strategic Innovation	Pollution Control through Process Innovation
Cloud & Edge Computing for Scalable Solutions	Chemical Process Intensification for Energy Efficiency
Natural Language Processing for Inclusive AI Systems	Circular Economy in Chemical Industries
<b>Aerospace Engineering</b>	
Indigenous Launch Vehicles and Space Tech for Development	Affordable Medical Devices for Rural India
UAVs and Drones for Agriculture, Security, and Disaster Relief	Bioengineering for Personalized Medicine
Reusable Space Systems for Cost Efficiency	Genomics and Precision Agriculture
Aerospace Materials for Lightweight and Efficient Design	Synthetic Biology for Clean Industrial Processes
Satellite-Based Navigation and Communication for BharatNet	Biomedical Imaging and AI Diagnostics
Hypersonic Systems and Strategic Defense Tech	Vaccine and Biotherapeutic Manufacturing Innovation
Aerodynamic Innovations for Green Aviation	Prosthetics and Assistive Technologies for All
<b>Environmental Engineering</b>	
Climate-Responsive Engineering for Resilient Ecosystems	Smart Irrigation and Water Use Efficiency
Wastewater Treatment and Reuse Technologies	Farm Mechanization for Smallholder Empowerment
Air Quality Monitoring and Control Systems	Precision Agriculture using Sensors and Drones
Sustainable Urban Drainage and Flood Management	Post-Harvest Technology and Cold Chain Innovation
Environmental Impact Assessment Tools	Solar-Powered Agricultural Equipment
Renewable Energy Integration in Urban Planning	Bioengineered Solutions for Crop Health
Nature-Based Solutions for Carbon Neutrality	AI in Agri-Supply Chain Optimization
<b>Metallurgical &amp; Materials Engineering</b>	
Advanced Alloys for Strategic Sectors	Industry 4.0 for Indian Manufacturing Excellence
Nanomaterials for Energy and Health Applications	Lean Systems and Automation for MSMEs
Recycling and Sustainable Metal Processing	Digital Twins in Production Systems
Indigenous Rare Earth and Critical Mineral Processing	Supply Chain Engineering for Food and Pharma Security
Materials for Hydrogen Economy and Energy Storage	Green Manufacturing and Resource Efficiency
Lightweight Composites for Mobility and Aerospace	Worker Safety and Human-Centric Design in Factories
Smart Materials for Responsive Engineering Systems	Integration of AI and IIoT in Industrial Operations
<b>Mining Engineering</b>	
Sustainable Mining Technologies	Blue Economy and Coastal Infrastructure
AI in Mineral Exploration and Mapping	Autonomous Underwater Vehicles for Surveillance and Research
Mine Safety and Automation	Offshore Renewable Energy (Wind, Tidal)
Value Addition of Indigenous Minerals	Port Modernization and Logistics Innovation
Environmental Restoration of Mined Lands	Marine Pollution Control and Coastal Protection
Smart Mining Equipment for Reduced Carbon Footprint	Naval Architecture for Strategic Development
Circular Economy in Mineral Processing	Deep-Sea Mining and Sustainable Resource Utilization
<b>Robotics &amp; Automation</b>	
Industrial Robots for Manufacturing 5.0	Smart Sensors for Infrastructure Monitoring
Agricultural Robots for Precision Farming	Automation in Process Industries
Service Robots in Healthcare and Public Utilities	Instrumentation for Renewable Energy Systems
Swarm Robotics for Surveillance and Disaster Response	Environmental Sensing for Climate Monitoring
Human-Robot Interaction for Elderly and Special Needs Care	Medical Instrumentation for Remote Healthcare
Autonomous Vehicles for Transport and Delivery	Precision Agriculture with Sensor Networks
AI-Powered Inspection and Maintenance Systems	Real-Time Monitoring Systems for Smart Cities
<b>Textile Engineering</b>	
Smart Textiles for Defense, Healthcare, and Wearable Tech	Waterless and Low-Impact Dyeing Technologies
Sustainable and Eco-Friendly Textile Manufacturing	High-Performance Fibers for Industrial Applications
Technical Textiles for Infrastructure, Automotive, and Aerospace	Natural Fiber Composites for Green Alternatives
Indigenous Fiber Development for Self-Reliant Textile Economy	Digitization and AI in Textile Design and Supply Chain
Automation and Industry 4.0 in Textile Production	Skill Development and Rural Empowerment through Textile Innovation
Circular Economy and Recycling Innovations in Textiles	Textile Waste Management and Zero-Waste Manufacturing
Antimicrobial and Functional Textiles for Health and Hygiene	Innovations in Biodegradable and Regenerative Textiles



Engineering professionals from Industries, R&D Organizations, Academic Institutions, Government Departments and PSUs are invited to contribute papers on the Themes and Subthemes of the Congress, as well as on each of the Fifteen Engineering Divisions of IEI. The papers should focus on sharing experiences/case studies, concepts, developmental ideas, research findings and more. Those intending to submit a paper are requested to note the scheduled dates provided below.

An Extended Abstract not exceeding 1000 words including maximum two figures/tables must be uploaded to <https://40iec.org/abstract-register/?task=register> as per the format available in the link: [https://www.ieindia.org/webui/IEI-Activities.aspx#Call\\_Papers](https://www.ieindia.org/webui/IEI-Activities.aspx#Call_Papers). After submitting the paper forward a mail to : [info@40iec.org](mailto:info@40iec.org) addressed to Chairman Technical Committee, 40<sup>th</sup> IEC giving the following details:

Title of the Paper; Paper ID; Date of Submission.

### IMPORTANT DATES

Event	Date
Submission of Extended Abstracts (MS Word file)	Nov 15, 2025
Intimation of acceptance of Extended Abstracts	Nov 20, 2025
Submission of full paper	Nov 25, 2025
Confirmation of acceptance of full paper	Dec 05, 2025
Intimation to authors with session details	Dec 07, 2025

The Extended Abstracts shall be reviewed for presentation in conference and same shall be published in Conference Proceedings having an ISBN number.

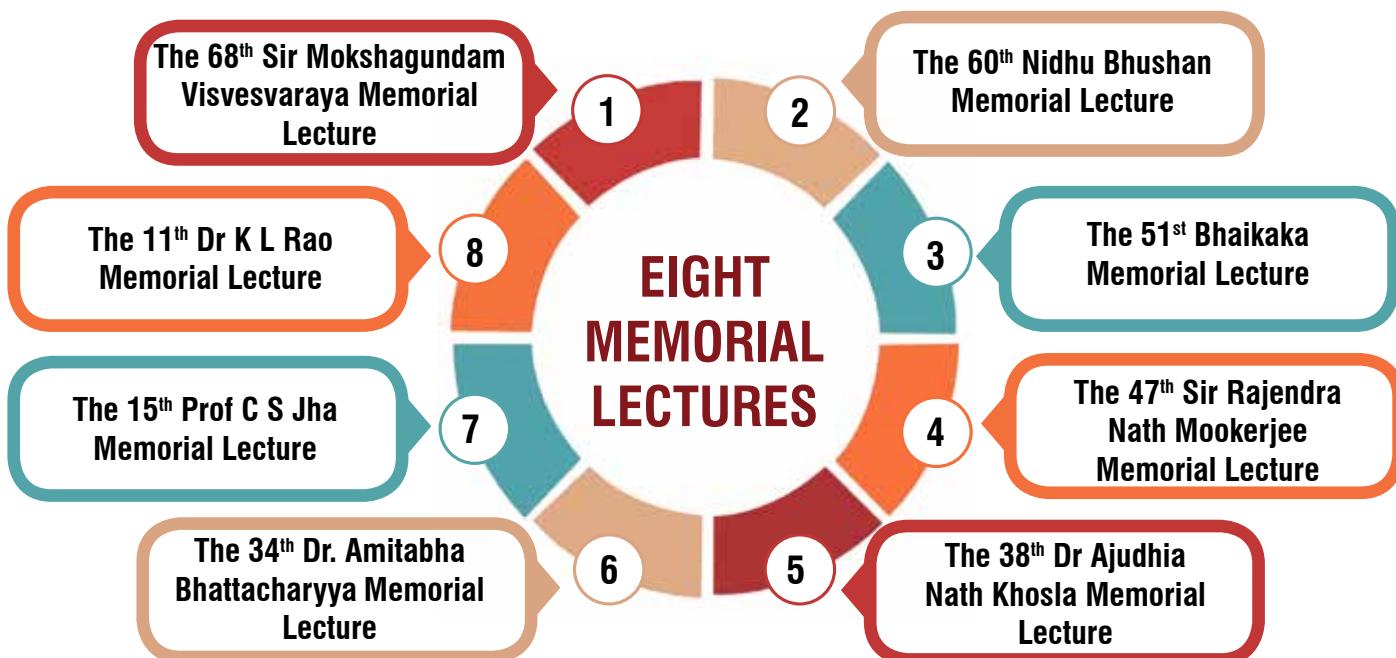
Presenting authors of each accepted papers (Extended Abstracts) shall mandatorily be required to Register for the conference, paying the applicable Registration Fees. However, Authors of selected papers (Extended Abstracts) other than presenting authors may attend the conference after paying proper registration fee.

### Publication of Full Paper

Full papers shall be reviewed after the conference and selected papers shall be invited for publication in IEI-Springer Journal (Series: A, B, C, D, E). Invitations through the mail shall be sent to the corresponding authors of the selected papers by Jan 30, 2026 with a layout for the submission to the IEI-Springer Journal. In addition to this, the papers which would not be selected for submission in IEI-Springer Journal shall be compiled in a Special Volume. Furthermore, the corresponding authors of the selected papers who will not be willing to submit their papers in IEI-Springer Journal, may submit their papers for this Special Volume.

### MEMORIAL LECTURES

Eight Memorial Lectures have been instituted by IEI in memory of the outstanding Engineers. These lectures form an important part of the Congress.



## **GLIMPSES OF ENGINEERING PERSONALITIES**

The success stories and achievements of engineering personalities will be presented at the Congress, followed by a felicitation ceremony. The Indian Engineering Congress offers a unique opportunity for budding engineers to listen to experts and veterans from industries, research institutions, and institutions of higher academic excellence as they share their experiences in tackling various complex engineering problems throughout their professional careers.

## **IEI INDUSTRY EXCELLENCE AWARD**

The IEI Industry Excellence Award, instituted in 2008 by The Institution of Engineers (India), aims to recognize and honor outstanding contributions made by Indian industries in the fields of productivity, quality, safety, and performance excellence. These benchmarks have positioned India prominently in global markets, reflecting the strength and capability of its industrial sector.

The award recognizes industry leaders who demonstrate innovative practices, engineering excellence, and strategic vision, allowing them to set examples and lead their sectors competitively and sustainably. By celebrating such excellence, the award also aims to inspire and guide other organizations toward similar achievements.

The IEI Industry Excellence Awards are presented to selected industries and organizations during the Indian Engineering Congress, underscoring their role in driving national progress through engineering innovation and leadership.

## **IEI ENGINEERING EDUCATION EXCELLENCE AWARD**

For over a century, The Institution of Engineers (India) has played a pivotal role in advancing the science, practice, and profession of engineering through a wide range of impactful initiatives. In recent years, there has been a significant growth in the number of academic institutions offering degree and diploma programs in engineering and technology across India.

To encourage and promote excellence in engineering education, and to identify institutions that set benchmarks in quality, innovation, and impact, the IEI Engineering Education Excellence Award was instituted. This award aims to recognize and honor leading engineering institutions that demonstrate outstanding contributions to teaching, research, industry collaboration, and overall academic excellence.

The Engineering Education Excellence Award 2025 will be presented during the 40th Indian Engineering Congress, serving as a national platform to celebrate and promote exemplary educational practices in engineering and technology.

## **INTERNATIONAL MEET**

Indian engineers and technologists have made significant contributions to advancing engineering practices both nationally and globally. In this spirit of collaboration and knowledge exchange, The Institution of Engineers (India) extends a warm invitation to engineers and technologists from around the world to participate in the Indian Engineering Congress.

The Congress serves as a platform for sharing global best practices, fostering international dialogue, and building partnerships. Representatives from international organizations with which IEI maintains bilateral relations will also be invited to attend, further enriching the event with diverse perspectives and experiences from across the engineering spectrum.

## **IEI ALUMNI MEET**

The Indian Engineering Congress offers a unique opportunity for IEI Alumni/Alumnae to reunite with their peers, reconnecting with old friends and colleagues. This gathering also serves as a platform for alumni to mentor and guide the younger generation of engineers, sharing their experiences, insights, and knowledge to inspire and shape the future of the engineering community.

## **WOMEN ENGINEERS' MEET**

The Institution of Engineers (India) acknowledges the valuable contributions of women engineers in shaping the engineering landscape. The Women Engineers' Meet, held during the Indian Engineering Congress, provides a dedicated platform for women professionals to connect, collaborate, and actively engage in discussions on emerging trends, challenges, and opportunities in the field of engineering.

## **PRIZES & AWARDS**

The Institution of Engineers (India) recognises outstanding achievements in research, innovation, and contributions to societal development by awarding a variety of prestigious prizes. These awards celebrate excellence in different categories and promote continued progress in engineering and its impact on society.

## **TECHNICAL EXHIBITION**

A Technical Exhibition will be held alongside the Congress to create a dynamic platform for various industries in all

engineering fields to showcase their products, technologies, and innovations. This exhibition presents a valuable opportunity for stakeholders, professionals, and participants to engage with the latest developments and solutions that are shaping the future of engineering.

## WHO WILL ATTEND

- Engineers from all sectors, including central and state governments, public sector enterprises, private industries, and service sectors
- Academicians including students, faculty members, and institutional leaders
- Researchers and scientists from a wide range of R&D establishments, including defense, aerospace, and industrial research organizations
- Corporate Members, Technician Members, and Student Members of The Institution of Engineers (India)
- International delegates and participants from partner engineering bodies abroad
- Members of other national and international engineering professional organizations.

## KEY TAKEAWAYS

- Stay Updated: Gain valuable insights into the latest advancements in your field of engineering.
- Future-Ready: Explore the challenges and solutions in cutting-edge technologies shaping the future.
- Career Opportunities: Discover emerging career paths and growth areas within engineering and technology.
- Collaborate: Forge new partnerships and explore opportunities for collaboration across sectors.
- Networking: Expand your professional network by connecting with experts, peers, and industry leaders.
- Innovative Showcase: Witness engineering marvels and breakthrough innovations at the Technical Exhibition.

## REGISTRATION FEE

Delegates (Corporate Members)	₹ 3000 + 18% GST=₹ 3540
Delegates (Non-Corporate Members)	₹ 4000 + 18% GST= ₹ 4,720
Delegates (Spouse of Corporate & Non-Corporate Members)	₹ 2000 + 18% GST= ₹ 2,360
Author(s)	₹ 3000 + 18% GST= ₹ 3,540
Delegates (Students/Research Scholars)	₹ 3000 + 18% GST= ₹ 3,540
Sponsored Delegates (Academics & Research Organization)	₹ 4000 + 18% GST= ₹ 4720
Sponsored Delegates (Industry/ Govt. Agency)	₹ 5000 + 18% GST= ₹ 5900
International Delegates	US\$ 500

## HOW TO REGISTER

Registration can be done online at <https://40iec.org/registration/>

Registration form along with DD/Payment acknowledgement may be sent to the Organising Chairman by post/email at [info@40iec.org](mailto:info@40iec.org)

## SPONSORSHIP OPPORTUNITIES

Category	Amount	No of Free Delegates	An additional 18% GST is applicable	Advertisement in Souvenir	No. of Exhibition Stall
Principal Sponsor	₹ 12,00,000	12		Spread Page	Three
Diamond	₹ 8,00,000	10		Spread Page	Two
Platinum	₹ 5,00,000	08		Full Page Colour	One
Gold	₹ 3,00,000	06		Full Page Colour	Nil
Silver	₹ 2,00,000	04		Full Page Colour	Nil
Bronze	₹ 1,00,000	03		Full Page Colour	Nil

## OTHER SPONSORSHIP OPPORTUNITIES AND PACKAGES

Categories	Amount	An additional 18% GST is applicable	No of Free Delegates
Seminar Kit	₹ 3,00,000		5
Congress Dinner	₹ 3,00,000		4
Cultural Event & Dinner	₹ 3,00,000		4
Lunch for one day	₹ 2,00,000		3

## SPONSORSHIP VISIBILITY AND OPPORTUNITIES

The logos of all sponsoring organizations will be prominently showcased on the event backdrop, as well as at other strategically selected locations throughout the venue. Furthermore, additional sponsorship opportunities are available, which include options to sponsor the Congress lunches, the cultural program, the Congress dinner, and the seminar kits. These opportunities are designed to enhance visibility and facilitate greater engagement with participants. All sponsoring organizations will benefit from the prominent display of their logos, thereby maximizing their presence and influence during the event.

## ADVERTISEMENT AND EXHIBITION STALL TARIFFS

In recognition of this significant occasion, a commemorative colour souvenir will be published and disseminated extensively among key stakeholders, including industry leaders, academic institutions, research organizations, and governmental bodies both within India and internationally. This souvenir serves as a distinguished platform for organizations to promote their brand and showcase their accomplishments through compelling advertisements.

Moreover, exclusive exhibition stalls will be provided, granting participating organizations a strategic opportunity to interact with delegates, display their products and services, and present their innovative contributions. This interaction will not only facilitate networking but also enhance the visibility of organizations throughout the duration of the Congress.

**Details of tariffs and entitlements are provided below.**

Categories	Amount	An additional 18% GST is applicable	No of Free Delegates
Back Cover Page (Colour)	₹ 100000		3
Inner Back Cover Page (Colour)	₹ 75000		2
Inner Front Page (Colour)	₹ 75000		2
Inside Full Page (Colour)	₹ 40000		1
Inside Half Page (Colour)	₹ 20000		Nil
Full Page (Black & White)	₹ 20000		Nil
Half Page (Black & White)	₹ 10000		Nil
Exhibition Stall (Corner)	₹ 75000		1
Exhibition Stall (Standard)	₹ 50000		1

## PAYMENT DETAILS

The Bank account details are given below may be used for online money transfers:

- Beneficiary: THE INSTITUTION OF ENGINEERS INDIA 40 IEC
- Bank: State Bank of India, Branch Code: 14545
- IFSC Code : SBIN0014545
- Account Number: 44162263128
- Branch Details : SBI C-Zone, Durgapur
- IEI PAN: AAATT3439Q
- GST Number : 19AAATT3439Q6ZM

			
<b>Er. Safikul Islam</b> Chairman Organising Committee	<b>Dr. Chandan Koner</b> Co-Chairman Organising Committee	<b>Dr. Bimal Das</b> Organising Secretary	<b>Dr. Arup Kr. Mandal</b> Convener Organising Committee

## CONGRESS SECRETARIAT

40<sup>th</sup> Indian Engineering Congress  
The Institution of Engineers (India), Durgapur Local Centre  
Nehru Avenue, B-Zone, Durgapur-713205

Tel: +919475912594

Website: <https://40iec.org>

Email: [durgapurlc@ieindia.org](mailto:durgapurlc@ieindia.org), [chairman.40iec@ieindia.org](mailto:chairman.40iec@ieindia.org), [secretary.40iec@ieindia.org](mailto:secretary.40iec@ieindia.org)

## NATIONAL STEERING COMMITTEE

Chairman	:	Er VB Singh	President, IEI
Co-Chairman	:	Dr G Ranganath	Immediate Past President, IEI
	:	Er K K Gopalakrishnan Nair	Vice President, IEI
	:	Prof (Dr) Girish Shrikisan Mundada	Vice President, IEI
	:	Prof (Dr) Samiran Choudhuri	Past President(s) from the State
Members	:	Er Sisir Kumar Banerjee	
	:	Er Sandip Kumar Deb	Chairman, Organising Committee, 39 <sup>th</sup> IEC and Council Member from the State
	:	Prof (Dr) Sadhan Chandra Ray	Council Members from the State
	:	Prof (Dr) Netai Chandra Dey	
	:	Prof (Dr) Raju Basak	
	:	Prof (Dr) Chandan Koner	Chairman, Durgapur Local Centre and Council Member from the State
	:	Er Safikul Islam	Chairman, Organising Committee, 40th IEC & Immediate Past Chairman, Durgapur Local Centre
	:	Dr Bimal Das	Secretary, Organising Committee, 40th IEC & Honorary Secretary, Durgapur Local Centre
	:	Maj Gen (Dr) MJS Syali, VSM (Retd)	Secretary & Director General, IEI
	:		

## NATIONAL ADVISORY COMMITTEE

Chairman	:	Er V B Singh, President, IEI
Co-Chairman	:	Prof Arvind Choubey, Director, NIT Durgapur
	:	Dr. G Ranganath , Immediate Past President IEI
	:	Er. S S Rathore, Past President IEI
	:	Prof. (Dr.) Samiran Choudhuri , Past President IEI
	:	Er. Sisir Kumar Banerjee, Past President IEI
	:	Er. S P Datta , Former Chairman RDF, IEI
	:	Dr. N C Murmu , Director, CSIR-CMERI, Durgapur
	:	Prof. Sukumar Mishra, Director,IIT (ISM) Dhanbad
	:	Mr. Satish Jha , CMD , ECL , Asansol
Members	:	Mr. Sanjay Kumar Singh , Former Director (Technical), BCCL & ECL
	:	Prof. VMSR Murthy , Director , IEST Shibpur
	:	Prof. Ajoy Kumar Ray , Former Director , IEST Shibpur
	:	Mr. Saibal Kanti Das, Managing Director, DPL, Durgapur
	:	Mr. Surajit Mishra, Director -incharge, SAIL-DSPASP and ISP
	:	Prof. Sudhangsu Sekhar Chakraborty, FINAE, Chairman, SVBTC
	:	Prof. Bhaskar Gupta, Former Vice Chancellor JU & VC JIS University
	:	
	:	
	:	

## ORGANIZING COMMITTEE

Organizing Chairman	:	Er. Safikul Islam, FIE, Immediate Past Chairman, IEI, Durgapur Local Centre
Organizing Co-Chairman	:	Dr. Chandan Koner, FIE, Chairman, Durgapur Local Centre
Organising Secretary	:	Dr. Bimal Das FIE, Honorary Secretary, IEI, Durgapur Local Centre
Convener	:	Dr. Arup Kumar Mandal, MIE, Jt. Honorary Secretary, IEI, Durgapur Local Centre
Members	:	Dr K C Ghanta, FIE, Past Chairman, Durgapur Local Centre, IEI
	:	Dr. N B Hui, NIT, Durgapur
	:	Er. Manik Nath Bandyopadhyay, FIE
	:	Dr. T. K. Bera, FIE
	:	Er. Debi Prasad Das, MIE
	:	Er. Manas Majumder, FIE
	:	Er. Debasish Guha, FIE
	:	Er. Sudipta Sikdar, AMIE
	:	
	:	

Members	: Dr. Rajib Ghosh Chaudhuri, AMIE
	: Dr. Subrata Kumar Mandal, AMIE
	: Er. Parasuram Shaw, FIE
	: Er. Nozrul Hussain Mozumder, FIE
	: Er. Koushik Chatterjee, AMIE
	: Dr. D. R. Kisku, FIE
	: Er. Arun Kr. Mukhopadhyay, FIE

## TECHNICAL COMMITTEE

Chairman	: Prof. Susmita Dutta, NIT Durgapur
Co-Chairman	: Dr. D R Kisku, E. C. Member, Durgapur Local Centre
Members	: Dr. Sujoy Saha, Department of Computer Science & Engineering, NIT Durgapur
	: Dr. Sirshendu Mondal, Department of Mechanical Engineering, NIT Durgapur
	: Dr. Arya Jyoti Ghoswami, Department of Mechanical Engineering, NIT Durgapur
	: Dr. Aniruddha Bhattacharya, Department of Electrical Engineering, NIT Durgapur
	: Dr. Sujit Kr. Mandal, Department of Electronics and Communication Engineering, NIT Durgapur
	: Dr. Satadal Ghorai, Department of Metallurgical & Materials Engineering, NIT Durgapur
	: Dr. Manoj Ozha, Department of Earth and Environmental Studies, NIT Durgapur
	: Dr. Gilbert Hinge, Department of Civil Engineering, NIT Durgapur
	: Prof. Surabhi Chaudhuri, Department of Biotechnology, NIT Durgapur
	: Dr. Sankha Karmakar, Department of Chemical Engineering, IIT, Madras
	: Dr. Tarun Kumar Naiya, Department of Petroleum engineering, IIT ISM, Dhanbad
	: Dr. Arindam Biswas, Department of Mining Engineering, Kazi Nazrul University, Asansol
	: Dr. Rajesh P Barnwal, Senior Principal Scientist, CSIR-CMERI, Durgapur
	: Prof. Bhim Charan Meikap, IIT Kharagpur
	: Prof. Deepshikha Datta, Brainware University
	: Prof. Swarnendu Sen, Jadavpur University
	: Dr. Avijit Ghosh, Heritage Institute of Technology, Kolkata
	: Dr. Suman Dutta, IIT ISM, Dhanbad
	: Dr. Arindam Pal, CEO & Director, Tech Soft Corporation
	: Prof. Jamuna Kanta Sing, JU
	: Prof. Karam Veer Arya, AVB-IIITM, Gwalior
	: Prof. Pankaj Sa, NIT, Rourkela
	: Prof. Amitava Chatterjee, JU
	: Prof. Nilay Krishna Mukhopadhyay, Dean (Faculty Affairs), IIT(BHU)
	: Prof. (Dr.) Asamanja Chattoraj, Kazi Nazrul University, Asansol
	: Dr. Suprabhat Mukherjee, Kazi Nazrul University, Asansol
	: Dr. Biru Rajak, Asansol Girls' College, Asansol
	: Dr. Debashis De, Director, IQAC, MAKAUT

### Note:

#### GRANT OF SPECIAL CASUAL LEAVE FOR GOVERNMENT OFFICERS ATTENDING MEETINGS OF SCIENTIFIC INSTITUTIONS

An extract from Notification No. 74(4) /50-SR.III dated July 28, 1951 printed in the Bulletin Vol. I No. 1 September 1951, p-28 and No. 227(7)/ 50-SR. III dated December 10, 1953 printed in the Bulletin, Vol. 3 No 3 March 1964, p-14, issued by the Ministry of Natural Resources and Scientific Research, Government of India in regard to the grant of casual leave to such officers who desire to attend Meetings of scientific associations.

## WELCOME TO DURGAPUR

Durgapur, an industrial city situated in the Paschim Bardwan district of West Bengal, India, is colloquially referred to as the "Steel City of Bengal." Founded in the late 1950s under the leadership of Dr. Bidhan Chandra Roy, the then Chief Minister of West Bengal, Durgapur is positioned along the banks of the Damodar River and is approximately 175 kilometers from Kolkata, the state's capital and international airport.

The city is characterized by a diverse array of manufacturing industries, including prominent entities such as the Durgapur Steel Plant (DSP), Alloy Steel Plant (ASP), General Electric Manufacturing Unit, and Durgapur Thermal Power Corporation, among others. The region is also rich in natural resources, being surrounded by numerous coal mines, which further enhance its industrial profile. Additionally, Durgapur houses a Software Technology Park of India, featuring various software firms that contribute to the city's growing technological sector.

Durgapur's infrastructure is well-developed, marked by well-constructed and illuminated roads that facilitate efficient transportation and connectivity. In contemporary times, Durgapur is emerging as a significant urban centre, second only to Kolkata in West Bengal, due to its robust infrastructure and modern amenities. These include shopping malls, multiplexes, five-star hotels, and multispecialty hospitals, all of which enhance the quality of life for residents and visitors alike.

Furthermore, Durgapur's accessibility is bolstered by its connectivity through road, rail, and air, including proximity to the Kazi Nazrul Islam Airport. The city is actively participating in the Smart Cities Mission, which aims to foster urban transformation while preserving its rich cultural heritage and social vibrancy. This multifaceted development approach underscores Durgapur's importance as a key player in the region's economic and cultural landscape.



SAIL-Durgapur Steel Plant



DVC, DSTPS Andal



Kazi Nazrul Islam Airport Andal



Anand Amusement Park City Centre Durgapur



Churulia



Maithon Dam



Santinekatan

## CONNECTIVITY WITH DURGAPUR THROUGH BUS/TRAIN/AIR

Red Bus Link: <https://www.redbus.in>

Train: <https://www.irctc.co.in/nget/train-search>

Air: • IndiGo: [www.goindigo.in](http://www.goindigo.in), • SpiceJet: [www.spicejet.com](http://www.spicejet.com),  
• Kazi Nazrul Islam Airport Official Website: [www.knairport.com](http://www.knairport.com)

## ACCOMMODATION

Accommodation for delegates is available in many hotels in Durgapur. Budget & Luxury hotels are

<p><b>Peerless Hotel Durgapur</b>            Sahid Khudiram Sarani, City Centre, Durgapur 713216            034925466-01/02/03/04 (Landline) +91 70666 43322 +91 70635            83680 (Duty Manager Desk/Hotline) Email: <a href="mailto:sales@kaizenhotels.co.in">sales@kaizenhotels.co.in</a>,  <a href="mailto:sales.dept@kaizenhotels.co.in">sales.dept@kaizenhotels.co.in</a>, <a href="mailto:fom@kaizenhotels.co.in">fom@kaizenhotels.co.in</a></p>	<p><b>The Citi Residenci</b>            Shahid Khudiram Sarani, opposite Cement Park, City Center, Durgapur, West Bengal 713216 Phone: +919609601999            Email: <a href="mailto:citiresidenci@yahoo.co.in">citiresidenci@yahoo.co.in</a></p>
<p><b>Fortune Park Pushpanjali</b>            C71/A Sahid Khudiram Sarani, City Centre, Durgapur - 713216, West Bengal            CONTACT DETAILS            Phone: +91 3432540500; +91 7365000837            Email: <a href="mailto:pushpanjali@fortunehotels.in">pushpanjali@fortunehotels.in</a>            Toll Free Reservation 1-800-419-6444, 1-800-102-2333</p>	<p><b>Hotel Astor</b>            Shahid Khudiram Sarani, City Center, Durgapur, West Bengal 713216            CONTACT DETAILS            Phone: 917477788895, +917477788896, +917477788897            Email: <a href="mailto:info@astorhotel.in">info@astorhotel.in</a>  <a href="mailto:sales@astorhotel.in">sales@astorhotel.in</a></p>
<p><b>Banerjee Inn</b>            Address: 3601 Satyajit, Sukumar Roy Path, City Center, Durgapur - 713216 (West Bengal) India            Phone: +913432543037, +918170061777            Email: <a href="mailto:banerjeeinn@gmail.com">banerjeeinn@gmail.com</a></p>	<p><b>Hotel Delta Suites</b>            C-97, Shahid Khudiram Sarani, opp. Junction Mall, Recol Park, Durgapur, West Bengal 713216            Phone: 078723 65365</p>

## TENTATIVE PROGRAMME MATRIX

**40<sup>th</sup> Indian Engineering Congress**

**19-21 December 2025, Durgapur**

19 Dec 25	18.00h – 21.00h	Industry Excellence Awards, Engineering Education Excellence Awards Function, Prizes & Awards, Safety & Quality Awards, National Design Awards.	
	21.00h	Dinner	
20 Dec 25	08.30h – 10.30h	Registration	
	10.00h – 12.00h	Inaugural Ceremony, Institution Prizes, Best Centre Awards, Release of Technical Volume of Congress, Release of Abhiyanta Bandhu	
	12.00h – 12.30h	Tea Break	Inauguration of Exhibition
	12.30h – 13.15h	<b>68<sup>th</sup> Sir Mokshagundam Visvesvaraya Memorial Lecture /Technical Session-I</b>	
	13.15h – 14.00h	Lunch	
	14.00h – 14.45h	<b>Glimpses of Engineering Personalities / Technical Session - II</b>	
	14.45h – 15.30h	<b>47<sup>th</sup> Sir Rajendra Nath Mookerjee Memorial Lecture /Technical Session - III</b>	
	15.30h – 16.30h	International Meet	
	16.30h – 17.15h	<b>60<sup>th</sup> Nidhu Bhushan Memorial Lecture / Technical Session-IV</b>	
	17.15h – 18.00h	<b>51<sup>st</sup> Bhaikaka Memorial Lecture / Technical Session - V</b>	
	19.00h – 20.00h	Cultural Programme	
	20.00h – 22.00h	Congress Dinner	
21 Dec 25	10.00h – 10.45h	<b>38<sup>th</sup> Dr Ajudhia Nath Khosla Memorial Lecture / Technical Session-VI</b>	
	10.45h – 11.30h	<b>34<sup>th</sup> Dr Amitabha Bhattacharya Memorial Lecture / Technical Session-VII</b>	
	11.30h – 12.15h	<b>15<sup>th</sup> Prof C S Jha Memorial Lecture / Technical Session-VIII</b>	
	12.15h – 13.00h	<b>11<sup>th</sup> Dr K L Rao Memorial Lecture / Technical Session - IX</b>	
	13.00h – 14.00h	Lunch	
	14.00h – 14.45h	IEI Alumni Meet	Women Engineers' Meet
	15.00h – 16.00h	106 <sup>th</sup> Annual General Meeting (Only for Corporate Members of IEI)	
	16.15h – 17.15h	Valedictory Session of the Congress	
	18.00h onwards	732 <sup>nd</sup> Council Meeting of IEI	
22 Dec 25	12.00 h	Check out and departure	

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